

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A paper roll support device for a rotary press, for supporting a paper roll for rotation and rotation braking together with a paper roll, set so that in the event of a normal stop at the time of normal operation, rotation of the paper roll is stopped after a predetermined rotation braking time has elapsed, while in the event of an emergency stop in an emergency, rotation of the paper roll is stopped using a rotation braking time that is shorter than the rotation braking time predetermined at the time of normal operation, comprising:

a pair of support means capable of supporting both sides of an inner tube on the paper roll, wherein the support means are positioned by moving at least one support member in the direction of the other opposed support member;

pressure change assigning means for (a) reciprocating in a direction of movement of the support means, (b) providing pressure to at least one support means to cause movement in a direction reducing a distance between a pair of support means, and (c) selectively changing over and assigning pressure for carrying out movement in a direction so as to reduce a distance between ~~[[a]]~~ the pair of support means between at least two magnitudes, wherein in the event of an emergency signal for an emergency stop of the ~~a sudden stop of a~~ rotary press, the pressure change assigning means is adapted to increase contact force between the support means and the inner tube of the paper roll by increasing pressure to cause movement in a direction to reduce a distance between ~~[[a]]~~ the pair of support means;

wherein the pressure change assigning means includes a path change-over device and at least one fluid pressure setting device;

a pressing means for reciprocating in a direction of movement of the opposing support member, and providing pressure to at least one support member to cause movement in a direction reducing a distance between a pair of support members; and

a paper roll detachment and change-over means for changing a path of fluid for creating pressure in the pressing means.

2. (Currently amended) A paper roll support device for a rotary press, for supporting a paper roll for rotation and rotation braking together with a paper roll, set so that in the event of normal stop at the time of normal operation, rotation of the paper roll is stopped after a predetermined rotation braking time has elapsed, while in the event of emergency stop in an emergency, rotation of the paper roll is stopped using a rotation braking time that is shorter than the rotation braking time predetermined at the time of normal operation, comprising:

a pair of support means having a pair of support members for supporting both sides of an inner tube of the paper roll;

movement positioning means for carrying out positioning by moving at least one support member in the direction of the other opposed support member;

braking means for braking rotation of the support members;

pressure change assigning means for (a) reciprocating in a direction of movement of the support means, (b) providing pressure to at least one support means to cause movement in a direction reducing a distance between the [[a]] pair of support means, and (c) selectively changing over and assigning pressure for carrying out movement in a direction so as to reduce a distance between [[a]] the pair of support means between at least two magnitudes, wherein in the event of an emergency signal for an emergency stop of the ~~a sudden stop of a rotary press~~, the pressure change assigning means is adapted to increase contact force between the support means and the inner tube of the paper roll by increasing pressure to cause movement in a direction to reduce a distance between [[a]] the pair of support means;

wherein the pressure change assigning means includes a path change-over device and at least one fluid pressure setting device;

pressing means, for reciprocating in the direction of movement of an [[the]] opposing support member, and providing pressure to at least one support member to cause movement in a direction reducing a distance between a pair of support members, as well for selectively changing and assigning pressure for carrying out movement in a direction so as to reduce a distance between a pair of support members between at least two magnitudes; and

a paper roll detachment and change-over means for changing a path of fluid for creating pressure in the pressing means;

wherein at least one support member has contact members provided for respectively reciprocating in a plurality of dovetail-shaped grooves, and is a support member for changing

contact pressure between outer surfaces of contact members and the inner surface of the inner tube of the paper roll using movement of the respective contact members to cause change in pressure applied to the support member;

wherein in the event of emergency stop of a rotary press, the paper roll support device is adapted to increase contact pressure between the support means and the inner tube by allowing the support means to increase pressure causing movement in a direction decreasing a distance between a pair of support means.

3. (Previously presented) The paper roll support device as claimed in claim 1 or claim 2, wherein the pressure change assigning means has fluid pressure setting means for changing at least a small pressure setting among two magnitudes of pressure assigned to at least one support means.

4. (Previously presented) The paper roll support device of claim 1, wherein the pressing means includes a first pressure chamber and a second pressure chamber;

wherein the paper roll detachment and change-over means is adapted to provide fluid paths to supply fluid to the first chamber of the pressing means and discharge fluid from the second chamber of the pressing means when the paper roll support device causes the paper roll to be pushed between the support means;

wherein the paper roll detachment and change-over means is adapted to provide fluid paths to supply fluid to the second chamber of the pressing means and discharge fluid from the first chamber of the pressing means to cause the support means to move to a standby position.

5. (Currently amended) The paper roll support device of claim 1, wherein the path change-over ~~means~~ device is adapted to receive fluid at a normal contact pressure from the paper roll detachment and change-over means and from a first fluid pressure setting means, and wherein the path change-over ~~means~~ device is adapted to receive fluid at an emergency contact pressure from a second fluid pressure setting means.

6. (Previously presented) The paper roll support device of claim 5, wherein the pressing means has a first pressure chamber and a second pressure chamber;

wherein the path change-over means is connected to the first chamber of the pressing means.

7. (Previously presented) The paper roll support device of claim 1, wherein the fluid pressure setting means is a pressure regulating valve.

8. (Previously presented) The paper roll support device of claim 1, wherein the fluid pressure setting means includes a first fluid pressure setting means and a second fluid pressure setting means, wherein the first fluid pressure setting means sets a normal contact pressure and the second fluid pressure setting means sets an emergency contact pressure, wherein the emergency contact pressure is greater than the normal contact pressure.

9. (Previously presented) The paper roll support device of claim 1, wherein the support members each include a contact member, an insertion section, and a flange;

wherein the contact members include an erected section and a base section, wherein the contact members travel along first inclined grooves formed in the surface of the insertion section of each support member.

10. (Previously presented) The paper roll support device of claim 9, wherein the first inclined grooves are gradually shallower in a radial direction so that as the base section of the contact member moves towards the flange the base section projects further from the insertion section.

11. (Previously presented) The paper roll support device of claim 9, wherein the first inclined grooves include a slit shaped slit groove and a dovetail groove.

12. (Previously presented) The paper roll support device of claim 2, wherein the pressing means includes a first pressure chamber and a second pressure chamber;

wherein the paper roll detachment and change-over means is adapted to provide fluid paths to supply fluid to the first chamber of the pressing means and discharge fluid from the second chamber of the pressing means when the paper roll support device causes the paper roll to be pushed between the support means;

wherein the paper roll detachment and change-over means is adapted to provide fluid paths to supply fluid to the second chamber of the pressing means and discharge fluid from the first chamber of the pressing means to cause the support means to move to a standby position.

13. (Previously presented) The paper roll support device of claim 2, wherein the path change-over means is adapted to receive fluid at a normal contact pressure from the paper roll detachment and change-over means and from a first fluid pressure setting means, and wherein the path change-over means is adapted to receive fluid at an emergency contact pressure from a second fluid pressure setting means.

14. (Previously presented) The paper roll support device of claim 13, wherein the pressing means has a first pressure chamber and a second pressure chamber;
wherein the path change-over means is connected to the first chamber of the pressing means.

15. (Previously presented) The paper roll support device of claim 2, wherein the fluid pressure setting means is a pressure regulating valve.

16. (Previously presented) The paper roll support device of claim 2, wherein the fluid pressure setting means includes a first fluid pressure setting means and a second fluid pressure setting means, wherein the first fluid pressure setting means sets a normal contact pressure and the second fluid pressure setting means sets an emergency contact pressure, wherein the emergency contact pressure is greater than the normal contact pressure.

17. (Previously presented) The paper roll support device of claim 2, wherein the support members each include a contact member, an insertion section, and a flange;
wherein the contact members include an erected section and a base section, wherein the contact members travel along first inclined grooves formed in the surface of the insertion section of each support member.

18. (Previously presented) The paper roll support device of claim 17, wherein the first inclined grooves are gradually shallower in a radial direction so that as the base section of the

contact member moves towards the flange the base section projects further from the insertion section.

19. (Previously presented) The paper roll support device of claim 17, wherein the first inclined grooves include a slit shaped slit groove and the dovetail grooves.